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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,454

08/01/2005

Alexander Straub

CS8440/LcA 36,202

7860

34469

7590

10/16/2008

BAYER CROPSCIENCE LP

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EXAMINER

KOSACK, JOSEPH R

ART UNIT

PAPER NUMBER

1626

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/518,454	<b>Applicant(s)</b> STRAUB, ALEXANDER	
	<b>Examiner</b> Joseph R. Kosack	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 11 and 14-20 are pending in the instant application.

#### ***Amendments***

The amendment filed on July 3, 2008 has been acknowledged and has been entered into the application file.

#### ***Previous Claim Objections***

Claims 11-20 were objected to previously for containing elected and non-elected subject matter. Applicant has not cancelled the non-elected subject matter, and has traversed on the grounds that the Examiner has incorrectly determined the special technical feature. Due to the obviousness rejection on the record for the claims, this is not found to be persuasive. The requirement remains FINAL and the objection is maintained except for cancelled claims 12 and 13.

#### ***Previous Claim Rejections - 35 USC § 103***

Claims 11-20 were rejected previously under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (WO 01/02378 A1) in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

Applicant has traversed the rejection on the grounds that potassium monopersulfate (aka peroxosulfuric acid in the free form) and hydrogen peroxide are not equivalent oxidizing agents, that Watanabe's procedure is conducted below pH 6, that potassium monopersulfate is superior to hydrogen peroxide, and that it is not understood why Patani et al. is cited. A declaration by Dr. Shlomi Cohen is provided to show that when the reaction does not have a pH of at least 6 that the reaction does not

go to completion, resulting in poor yield and selectivity. The declaration also states that there is no report of the reaction proceeding to completion in two hours under the mild conditions that are claimed.

The Examiner must disagree. First, Watanabe clearly point to potassium monopersulfate as an alternative to hydrogen peroxide as has been stated previously. The group of oxidizing agents listed by Watanabe et al. is not large, but only six named possibilities. Peroxosulfuric acid is named specifically, therefore it is adequately suggested. Even if the reaction proceeds with an unexpected result such as a faster reaction time or a cleaner reaction as shown by Dr. Cohen's declaration, this evidence does not rise to the level to overcome the extremely strong case of obviousness set forth since Watanabe et al. clearly state Applicant's oxidant of choice as a possibility.

Secondly, Watanabe et al. raises the pH to 6 only in the reaction from sulfide to sulfonyl. As this step is not mentioned in Example 2 which shows the reaction of sulfide to sulfoxide, the person of ordinary skill in the art would understand that the raising of the pH would carry the reaction to completion and that Watanabe et al. teach the pH provision in claim 11.

Finally, Patani et al. teaches that for biologically active materials, which the final product of Applicant's process is one of, that hydrogen and fluorine may be bioisosterically substituted for one another, one of skill in the art would predict that a process that oxidizes a sulfur atom would not affect a ring hydrogen or fluorine atom. The purpose of Patani et al. is to more fully address the claim to cover where R1 is fluorine or hydrogen.

The rejections are respectfully maintained except for cancelled claims 12 and 13.

***Previous Double Patenting Rejections***

Claims 11-20 were rejected previously on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,734,198 in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

Applicant traverses the rejection on the same grounds as the 35 U.S.C. 103(a) rejection.

This is not found persuasive for the reasons stated above in the discussion of the 35 U.S.C. 103(a) rejection. The rejection is maintained except for cancelled claims 12 and 13.

***Claim Objections***

Claims 11 and 14-20 are objected to for containing elected and non-elected subject matter. The elected subject matter have been identified supra.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

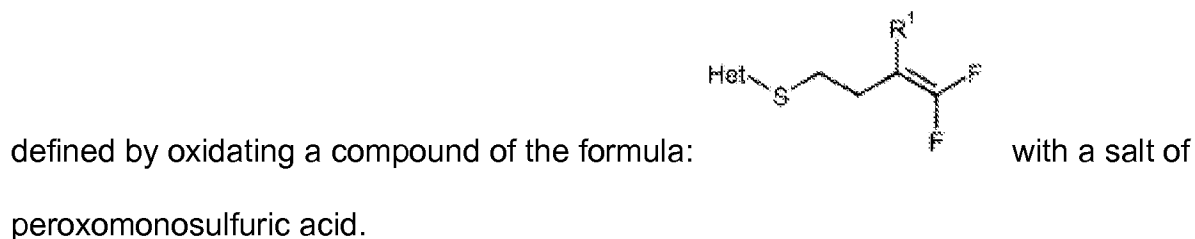
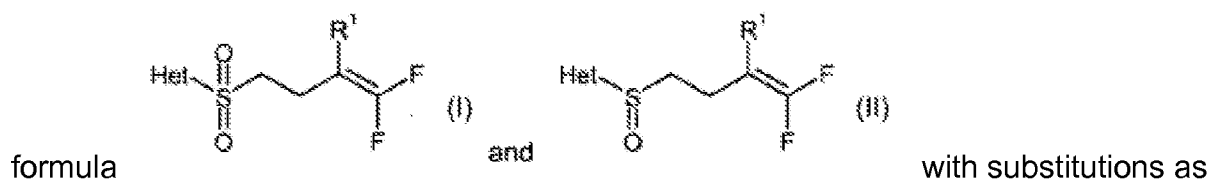
1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

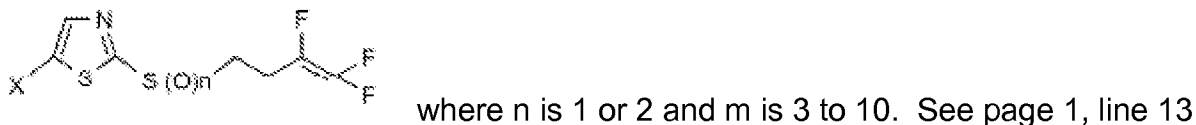
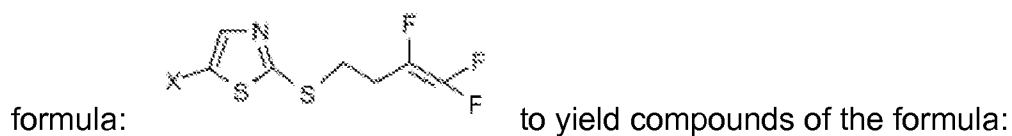
Claims 11 and 14-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (WO 01/02378 A1) in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

The instant application is drawn to a method of making compounds of the



Determination of the scope and content of the prior art (MPEP §2141.01)

Watanabe et al. teach the oxidation by hydrogen peroxide of a compound of the



through page 2, line 16.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

Watanabe et al. do not teach explicitly the oxidation by hydrogenperoxomonosulfate, i.e. potassium peroxymonosulfate and compounds where R<sup>1</sup> of the instant compounds is hydrogen.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

Watanabe et al. teaches that potassium peroxomonosulfate can be used as the oxidizing agent. See page 4, lines 7-11. Patani et al. teach the bioisosteric replacement of hydrogen for fluorine. See pages 3149-3150.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to follow the synthetic scheme of Watanabe et al. and substitute fluorine for hydrogen in the alkene group according to Patani et al. and use potassiumperoxomonosulfate as suggested by Watanabe et al. to make the claimed invention with a reasonable expectation of success. The motivation to do so is provided by Watanabe et al. Watanabe et al. teach the use of the synthesized compounds as nematicides. See the abstract.

Thus, the claimed invention as a whole was *prima facie* obviousness over the combined teachings of the prior art.

**Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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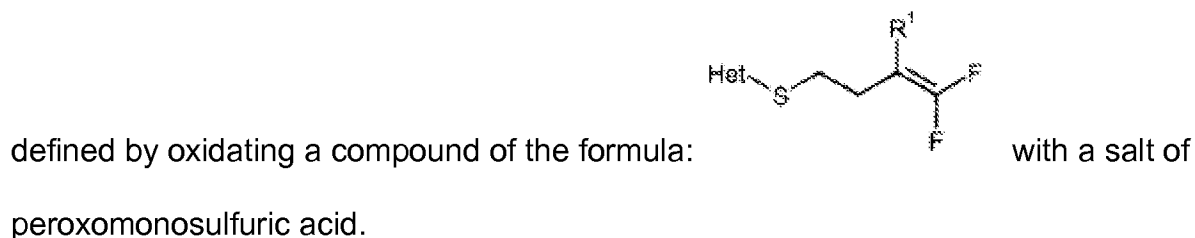
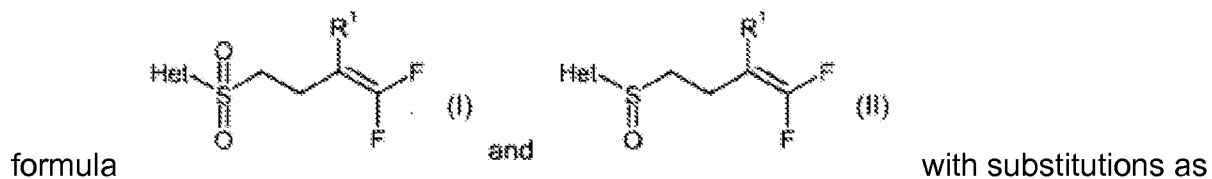
from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

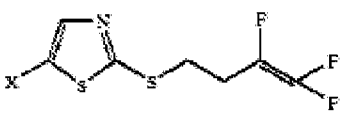
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

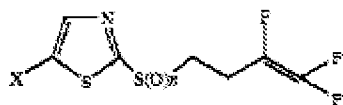
Claims 11 and 14-20 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,734,198 in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

The instant application is drawn to a method of making compounds of the





'198 teaches the oxidation of  to yield



where n is 1 or 2 and X is a halogen.

'198 does not teach the process where R<sup>1</sup> of the instant compounds would be hydrogen.

Patani et al. teach the bioisosteric replacement of hydrogen for fluorine. See pages 3149-3150.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to follow the synthetic scheme of '198 and substitute fluorine for hydrogen in the alkene group according to Patani et al. to make the claimed invention with a reasonable expectation of success. The motivation to do so is provided by '198. '198 teach the use of the synthesized compounds as nematocides. See the abstract.

### **Conclusion**

Claims 11 and 14-20 are rejected. Claims 11 and 14-20 are objected to.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Kosack whose telephone number is (571)272-5575. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/REI-TSANG SHIAO /  
Primary Examiner, Art Unit 1626

/Joseph R Kosack/  
Examiner, Art Unit 1626